

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
FETHE24.001CP1APPLICATION NO.
10/005,186INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANTS
Camm, et al.FILING DATE
December 4, 2001GROUP ART UNIT
3742

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
STJ	1,587,023	06/01/26	Mottlau			
	24,296 RE	03/26/57	Stewart			
	2,981,819	04/25/61	Gregory			
	3,047,438	07/31/62	Marinace			
	3,108,713	10/22/63	Barrett, et al.			
	3,160,517	12/08/64	Jenkin			
	3,188,459	06/08/65	Bridwell			
	3,227,065	01/04/66	Litman			
	3,239,651	03/08/66	Silberman			
	3,240,915	03/15/66	Carter, et al.			
	3,460,510	08/12/69	Currin			
	3,502,516	03/24/70	Henker			
	3,623,712	11/30/71	McNeilly, et al.			
	3,627,590	12/14/71	Mammel			
	3,661,637	04/09/72	Sirtl			
	3,692,572	09/19/72	Strehlow			
	3,836,751	09/17/74	Anderson			
	3,913,872	10/21/75	Weber			
	4,041,278	08/09/77	Boah			
	4,081,313	03/28/78	McNeille, et al.			
	4,097,226	06/27/78	Erikson, et al.			
	4,101,759	07/18/78	Anthony, et al.			
	4,115,163	09/19/78	Gorina, et al.			
	4,151,008	04/24/79	Kirkpatrick			
	4,164,643	08/14/79	Peart, et al.			
	4,220,483	09/02/80	Cazcarra			
	4,224,096	09/23/80	Osborne			

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Shawntina Fugua

DATE CONSIDERED

3/7/04

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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	4,233,493	11/11/80	Nath			
<i>SL</i>	4,308,078	12/29/81	Cook			
	4,315,130	02/09/82	Inagaki, et al.			
	4,331,485	05/25/82	Gat			
	4,370,175	01/25/83	Levatter			
	4,375,993	03/08/83	Mori, et al.			
	4,379,727	04/12/83	Hansen, et al.			
	4,398,094	08/9/83	Hiramoto			
	4,421,048	12/20/83	Adema, et al.			
	4,431,459	02/14/84	Teng			
	4,455,479	06/19/84	Itoh, et al.			
	4,493,977	01/15/85	Arai, et al.			
	4,533,820	08/06/85	Shimizu			
	4,539,431	09/03/85	Moddel, et al.			
	4,540,876	09/10/85	McGinty			
	4,550,245	10/29/85	Arai, et al.			
	4,550,684	11/05/85	Mahawili			
	4,567,352	01/28/86	Mimura, et al.			
	4,649,261	03/10/87	Sheets			
	4,680,447	07/14/87	Mahawili			
	4,698,486	10/06/87	Sheets			
	5,219,786	06/15/93	Noguchi			
	5,336,641	08/09/94	Fair, et al.			
	5,399,506	03/21/95	Tsukamoto			
	5,446,825	08/29/95	Moslehi, et al.			
<i>V</i>	5,908,307	06/01/99	Talwar, et al.			
<i>SL</i>	6,051,483	04/18/00	Lee, et al.			

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FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
Sf	32864	08/08/21	Norway				
	938,699	12/16/60	United Kingdom				
	55-115327 (Abstract)	09/05/80	Japan				
	56-48128 (Abstract)	05/1/81	Japan				
	2065973A	07/01/81	United Kingdom				
	0080729 (Abstract)	05/20/82	Japan				
	57-208146 (Abstract)	12/21/82	Japan				
	02294027A	05/12/90	Japan				
	0 399 662 A2	11/28/90	European				
	WO 00/67298	11/09/00	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
Sf	J. Lue, "Arc Annealing of BF ₂ +2 Implanted Silicon by a Short Pulse Flash Lamp," Appl. Phys. Lett., Volume 36, No. 1, pp. 73-76, dated January 1, 1980.
	M. Lefrancois and D. Camm, "Temperature Uniformity During Impulse TM Anneal," 8 th International Conference on Advanced Thermal Processing of Semiconductors, RTP 2000, pp. 1-6, dated September 20-22, 2000.
	A.T. Fiory, K.K. Bourdelle, P.K. roy and S.P. McCoy, "Spike Annealing of Implanted PMOS Gates," Proc. of RTP 2000 Conference, pp. 1-8, dated September 20-22, 2000.
	D.M. Camm and B. Lojek, "High Power Arc Lamp RTP System for High Temperature Annealing Applications," 2 nd International Rapid Thermal Conference, pp. 1-7, (1994).
	A.T. Fiory, K.K. Bourdelle, M.E. Lefrancois, D.M. Camm and A. Agarwal, "Electrical Measurements of Annealed Boron Implants for Shallow Junctions," Advances in Rapid Thermal Processing, Volume 99-10, pp. 133-140, (1999).
	D.M. Camm and M. Lefrancois, "Spike Thermal Processing Using Arc Lamps," Advances in Rapid Thermal Processing, (2000).
	A.T. Fiory, D.M. Camm, M.E. Lefrancois, S.P. McCoy and A. Agarwal, "Annealing Ultra-Low Energy Boron Implants with an Arc Lamp System," RTP 1999, pp. 273-280 (1999).
	Semiconductor Industry Association, "International Technology Roadmap for Semiconductors," International Sematech, Austin Texas, pp. 7, 14, pp. 123-131, (1999).
	"Products, Capabilities," Tamarack Scientific Co., Inc.
	"Searchlight Model-100," Tamarack Scientific Co., Inc.
Sf	A.R. Lunde, "Nasa Tech Brief," B75-1008, Lewis Research Center, dated April 1975.
	"Transient Calorimeter Calibration System," AFFDL-TR-75-24, Tamarack Scientific Company, Orange, California, pp. 1-50, dated March 1975.
	N.S. Kapany, J.A. Eyer and R.E. Keim, "Fiber Optics. Part II. Image Transfer on Static and Dynamic Scanning with Fiber Bundles," Journal of the Optical Society of America, Volume 47, No. 5, pp. 423-427, dated May 1957.
	R. J. Potter, "Transmission Properties of Optical Fibers," Journal of the Optical Society of America, Volume 51, No. 10, pp. 1079-1089, dated October 1961.

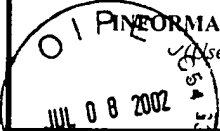
EXAMINER	Shauntina Fague	DATE CONSIDERED	3/7/04
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(USE SEVERAL SHEETS IF NECESSARY)		FILED DATE December 4, 2001	

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
<i>gdy</i>	D. E. Williamson, "Cone Channel Condenser Optics," Journal of the Optical Society of America, Volume 42, No. 10, pp. 712-715, dated October 1952.
	R.L. Cohen, J.S. Williams, L.C. Feldman and K.W. West, Thermally Assisted Flash Annealing of Silicon and Germanium, Bell Laboratories, Murray Hill, New Jersey, pp. 1-4.
	R.J. von Gutfeld, "Crystallization of Silicon for Solar Cell Applications," IBM Technical Disclosure, Volume 19, IBM Corp., pp. 3955-3956, dated March 1977.
	T.O. Sedgwick, "Short Time Annealing," J. Electrochem. Soc., Volume 130, No. 2, pp. 484-492, dated February 1983.
	P. S. Burggraaf, "Rapid Wafer Heating: Status 1983," Semiconductor International, pp. 69-74, dated December 1983.
	A. Gat and S. Shatas, "Introduction to Heatpulse™ Processing Technology," AG Associates, Mountain View, California, pp. 1-29.
	J. C. Gelpy and P. O. Stump, "Rapid Optical Annealing Using the Water-Wall DC Arc Lamp," Microelectronic Manufacturing and Testing, pp. 22-24, dated August 1983.
	M.M. Chen, J.B. Berkowitz-Mattuck and P.E. Glaser, "The Use of a Kaleidoscope to Obtain Uniform Flux Over a Large Area in a Solar or Arc Imaging Furnace," Applied Optics, Volume 2, No. 3, pp. 265-271, dated March 1963.
	R. Klabes, J. Matthai, M. Voelskow and S. Mutze, "Pulsed Incoherent Light Annealing of Arsenic and Phosphorous Implanted Polycrystalline Silicone," Physica Status Solidi, pp. K5-7, K9-12 (1982).
	A. Lietoila, R.B. Gold and J.F. Gibbons, "Temperature Rise Induced in Si by Continuous Xenon Arc Lamp Radiation," American Institute of Physics, Volume 53, No. 2, pp. 1169-1172, dated February 1982.
	R.A. Powell and R.T. Fulks, "Annealing of Implantation Damage in Integrated-Circuit Devices Using an Incoherent Light Source," American Vacuum Society, pp. 32-36, dated January 1982.
	J.C. Gelpy, P.O. Stump and J.W. Smith, "Process Control for a Rapid Optical Annealing System," Mat. Res. Soc. Symp. Press, Volume 52 (1986).
	J.H. Myer, "Zoomable Kaleidoscopic Mirror Tunnel," Applied Optics, Volume 10, No. 9, pp. 2179-2182, dated September 1971.
	"RTP-800 Rapid Thermal Processor," Extrinsic Division Semiconductor Equipment Group, Varian, pp. 1-6, dated December 1985.
	K. Nishiyama, M. Arai and N. Watanabe, "Radiation Annealing of Boron-Implanted Silicon with a Halogen Lamp," Japanese Journal of Applied Physics, Volume 19, No. 10, pp. L563-L566, dated October 1980.
	M. Current and A. Yee, "Ion Implantation and Rapid Annealing of 125 mm Wafers," Solid State Technology, pp. 197-202, dated October 1983.
	D.J. Lischner and G.K. Celler, "Rapid Large Area Annealing of Ion-Implanted Si with Incoherent Light," Laser and Electron-Beam Interactions with Solids, Elsevier Science Publishing Company, Inc., pp. 751-758, (1982).
	J.C. C. Fan, B.-T. Tsaur and M.W. Geis, "Transient Heating with Graphite Heaters for Semiconductor Processing," Laser and Electron-Beam Interactions with Solids, Elsevier Science Publishing Company, Inc., pp. 751-758 (1982).
	R.L. Cohen, J.S. Williams, L.C. Feldman and K.W. West, "Thermally Assisted Flash Annealing of Silicon and Germanium," Appl. Phys. Lett., Volume 33, No. 8, pp. 751-753, dated October 1978.
	H.A. Bomke, H.L. Berkowitz, M. Harmatz, S. Kronenberg and R. Lux, "Annealing of Ion-Implanted Silicon by an Incoherent Light Pulse," Appl. Phys. Lett., Volume 33, No. 11, pp. 955-957, dated December 1, 1978.
	R.A. Powell, T.O. Yee and R.T. Fulke, "Activation of Arsenic-Implanted Silicon Using an Incoherent Light Source," Appl. Phys. Lett., Volume 39, No. 2, pp. 150-152, dated July 15, 1981.
<i>gdy</i>	R.E. Sheets, "Automatic Cassette to Cassette Radiant Impulse Processor," Nuclear Instruments and Methods in Physics Research, Amsterdam, Elsevier Science Publishers B.V., pp. 219 - 223 (1985).

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EXAMINER <i>Shaontina Jazua</i>	DATE CONSIDERED <i>3/7/04</i>
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	Atty. Docket No. FETHE24.001CP1 (47753-Scip)	Serial No. 10/005,186
	Applicant(s) David Malcolm Camm; J. Kiefer Elliott	
	Filing Date December 4, 2001	Group 3742

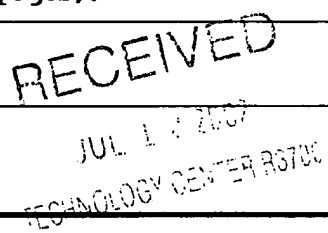
U.S. PATENT DOCUMENTS

Examiner Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE

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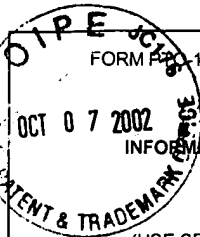
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							YES	NO
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OTHER ART (including Author, Title, Date, Pertinent Pages, Etc.)

Self	International Search Report for PCT/CA01/01706 (2 pages).	
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EXAMINER	Shacolina Fagua	DATE CONSIDERED 3/6/04

*EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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<i>SH</i>	5,561,735	10/01/96	Camm	11	11	
<i>SH</i>	6,303,411	10/16/01	Camm, et al.	11	11	

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						YES	NO

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EXAMINER <i>Shavontina Lague</i>	DATE CONSIDERED <i>3/6/04</i>
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EXAMINER
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<i>ST</i>		Tillmann, et al. "Processing of 200 and 300 mm Wafers in an Advanced Rapid Thermal Processing System," Proc RTP 1998, 6 th International Conference on Advanced Thermal Processing of Semiconductors, Kyoto, Japan, 1998, pp. 62-63.

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